

**REMARKS**

Claims 1-38 are present in this application, all of which are rejected.

Claims 1-3, 7, 11, 13-14, 18, 22-24, 29-34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Leoutsarakos (U.S. 2004/0039905) (hereinafter Leo). Applicants respectfully request reconsideration of this rejection.

Regarding the independent claim 1, the Examiner referred to “figures 1, figure 7 (e.g., client unit 1 and corporate server are two distributed nodes) and paragraph 0074)” of Leo for teaching “a distributed authentication infrastructure including a plurality of nodes in communication with each other, each of said plurality of nodes having an identification and intended to perform a series of functions, one of said series of functions for verifying said identification of said plurality of nodes”(underlining added). The applicants respectfully disagree with this reading. The client units in Leo cannot function to verify the identification of any of the other client units. Neither Figure 1 nor the corresponding text in the specification (paragraphs 0025, 0026 and 0027) refers to such a function. The same is true of Figure 2 and paragraphs 0028-0037 which together describe the client units. Paragraph 0074 seems irrelevant to the applicants. In fact, the teaching of Leo seems to suggest a centralized authentication infrastructure, rather than a distributed authentication infrastructure or a distributed infrastructure combined with a centralized infrastructure. As taught by Leo in paragraph 0011, lines 4-5; paragraph 0012, lines 4-6, paragraph 0013, lines 11-14, and claim 1, the central management server is the major authenticator and the corporate server can also be relied on for authentication (claim 2). The client units are not taught to function to authenticate any other nodes, other than a

brief reference limited to communication with central management server for a bilateral secure authentication (paragraph 0062 and claim 3).

Regarding claim 1, the Examiner further stated that Leo teaches “said distributed authentication infrastructure is initially implemented and said centralized authentication infrastructure is later integrated into said distributed authenticated infrastructure” and cited Figure 1 of Leo for support. The applicants respectfully disagree with this reading. As discussed above, Leo does not teach a distributed authentication infrastructure wherein, as claimed in the present invention, each of the nodes can authenticate the plurality of the nodes. In addition, Leo does not teach or suggest the sequence (implementation of distributed authentication infrastructure followed by implementation of centralized authentication structure).

Therefore, the rejection of claim 1 should be withdrawn.

Regarding claims 2 and 36, the Examiner stated that “Leo further discloses wherein said plurality of nodes includes a verifying node coupled to a new entity for verifying the identification of said new entity and enrolling said new entity into the hybrid authentication system (Leo: paragraph 0122).” Paragraph 0122 discloses authenticating a new client unit by the central management server. The authentication of the new entity (new client unit) is not carried out by a verifying node. Please note that in the present application, as taught in claims 2 and 36, the central server is a different and separate entity from the verifying node, the latter being one of the plurality of nodes.

Regarding claim 3, the arguments presented above for claim 2 are relied on. Leo teaches authenticating a new entity by a central management server, rather than a verifying node.

Regarding claims 7 and 11, the Examiner stated that “Leo further discloses wherein said central server is said new entity (Leo: see figure 1 item 16).” The central server, called central management server in Leo, is an essential authenticating entity and indispensable to the infrastructure in Leo, rather than a new entity that is to be first authenticated by other existing nodes and then added to the infrastructure.

Claim 23, 24 and 29 are independent claims. The Examiner has made it clear that claims 23, 24 and 29 have similar limitations as those of claim 1 thus rejected with the same rationale applied against claim 1. The applicants’ hereby incorporate by reference all the arguments provided for claim 1 and hold the position that the rejection of claims 23, 24 and 29 are similarly improper and should be withdrawn.

Regarding claims 32-34, Leo fails to teach migration from a distributed authentication infrastructure to a centralized authentication structure, as the structure in Leo is centralized only (see arguments presented for claim 1).

All other claims rejected under the same ground depend from the independent claims (1, 23, 24 and 29) either directly or indirectly.

Therefore, the rejection of claims 1-3, 7, 11, 13-14, 18, 22-24, 29-34 and 36 under 35 U.S.C. 102(e) as being anticipated by Leo should be withdrawn.

Claims 8 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo in view of Dinker (US 20040254984). Applicants respectfully request reconsideration of this rejection.

Regarding claims 8 and 38, the Examiner relied on Leo to teach all the limitations except that “Leo does not disclose wherein said distributed authentication infrastructure requires a quorum of said plurality of nodes for enrolling a new entity into the hybrid

authentication system” and relied on Dinker to cure the omission. As presented above with respect to claim 1, Leo fails to teach all the limitations of the claims as read by the Examiner. Dinker fails to overcome the deficiencies.

Therefore, the rejection of claims 8 and 38 should be withdrawn.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leo in view of Prabandham et al. (US 6701438).

Applicants respectfully request reconsideration of this rejection.

The Examiner relied on Leo to teach all the limitations of the present invention except that Leo does not teach producing a log for recording a plurality of failed authentications and a plurality of failed enrollments by said plurality of nodes” and relied on Prabandham to cure the omission. As presented above regarding claim 1, Leo fails to disclose all the limitations as read by the Examiner and Prabandham fails to cure the deficiencies.

Therefore, the rejection of claim 12 should be withdrawn.

Claim 4-6, 15-17, 19-21, 25-28, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo in view of Benatar (US 2003/0130947).

With respect to these claims, the Examiner relied on Leo teach all the limitations except a few omissions related to certificates and relied on Benatar to cure the omission. As presented above regarding claim 1, Leo fails to disclose all the limitations as read by the Examiner and Benatar fails to cure the deficiencies.

The rejection of claims 4-6, 15-17, 19-21, 25-28, 35 and 37 should be withdrawn.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo in view of Dinker, and further in view of Ben.

Regarding claim 9, the Examiner relied on Leo to teach all the limitations of the invention except that each node of said quorum utilizes a partial key for partially signing a certificate related to said new entity so as to provide said new entity with a full signature, and relied on Ben to cure this omission. As presented above regarding claim 1, Leo fails to disclose all the limitations as read by the Examiner and Ben fails to cure the deficiencies. In addition, it is the applicants' position that Ben fails to teach what the Examiner relied on it to teach, i.e., "each node of said quorum utilizes a partial key for partially signing a certificate related to said new entity so as to provide said new entity with a full signature." The paragraphs cited by the Examiner in Benatar (0008, 0011 and 0037) are related to signing a certificate and no reference was made to each node of said quorum utilizing a partial key for partially signing a certificate to provide a full signature.

Claim 10 depends on claim 9.

Therefore, the rejection of claims 9 and 10 should be withdrawn.

#### SUMMARY

It is submitted that the application is in condition for allowance and notification thereof is respectfully requested.

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